

Prior to this amendment, the claims stood rejected under 35 U.S.C. § 103(a) over Yoshizawa in view of JP '972. As applicants previously explained, the technical basis for the rejection is plainly wrong.

The invention relates to a negative electrode for an electrochemical cell. In general, the negative electrode includes zinc alloy particles, suspended in an electrolyte fluid medium. In certain aspects, the negative electrode includes at least 10 percent of the particles having a **-200 mesh size or smaller** (claims 1, 15, 20, and 28). Note that 200 mesh size indicates particles that pass through a 200 mesh screen. See, for example, page 1, lines 28-32, and page 4, lines 14-17 of the specification. In some embodiments, negative electrode mixtures include less than 55 percent particles (see claims 15 and 27).

Particles of about -200 mesh size or smaller

Independent claims 1, 15, 20, and 28 require particles of about -200 mesh size or smaller that are suspended in a fluid medium.

In making the rejection of the claims, the Examiner states that "Yoshizawa et al. does not disclose the shape or **mesh size** of the zinc alloy particles" (at page 3, line 7 of the Office Action; emphasis added). But in fact, Yoshizawa's zinc alloy powder is made by an atomization method to produce zinc alloy particles "within the range of **45-150 mesh**" (Yoshizawa col. 6, lines 27-33; emphasis added). Note that a smaller mesh size corresponds to a larger particle size. See, for example, page 9, lines 1-15 of the Specification. Thus, Yoshizawa not only discloses the mesh size but also teaches zinc alloy particles having a specific range of sizes (45-150 mesh size) which are significantly larger than the zinc alloy particle sizes (-200 mesh size or smaller) recited in claims 1, 15, 20, and 28.

Moreover, Yoshizawa does not suggest that the particles should have any size other than range of 45-150 mesh. In fact, Yoshizawa states that "the inventors have studied the composition ... to provide the optimum effect and, as a result, they have found the optimum compositions and combinations" (Yoshizawa col. 4, lines 37-43). Those effects include providing a battery "free of environmental destruction and having an improved resistance to electrolyte-leak and good storage stability." Yoshizawa, col. 2, lines 26-40). Thus, Yoshizawa **teaches away** from altering the optimized composition, such as using zinc alloy particles having mesh sizes outside the range of 45-150 mesh size. A person of ordinary skill in the art would not

B

B

have been motivated to use a different mesh size because that person would not want to alter the "optimum effect" achieved by Yoshizawa.

The Examiner believes that 'JP '972 demonstrates the conventionality of small zinc particles (at page 4, line 18 of the Office Action mailed November 22, 1999). Applicants contend that the teaching of particle sizes in JP '972 is irrelevant. JP '972 describes a different type of negative electrode and thus would not motivate a person of ordinary skill in the art to vary the components of the negative electrode described in Yoshizawa that were found to provide an "optimum effect."

Moreover, the fine particles described in JP '972 are zinc metal particles. Even if the fine zinc metal particles described in JP '972 were substituted into the negative electrode described by Yoshizawa an electrode within the scope of the claims would not be obtained because the negative electrode would not contain zinc alloy particles having the mesh size required by the claims. The Examiner has not cited any reference that teaches using zinc alloy particles having the required mesh size in a negative electrode.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 as applied to claims 1, 15, 20, and 28.

CONCLUSION

Applicants submit that the application is in condition for allowance, and such action is requested.

Applicants note that a PTO Form 1449 submitted on April 29, 1999 has not been initialed and returned by the Examiner. For convenience of the Examiner, a copy of the 1449 form is submitted herewith.

Filed herewith is a check in payment of the excess claims fees required by the above amendments.

Please apply any other charges or credits to Deposit Account No. 06-1050.

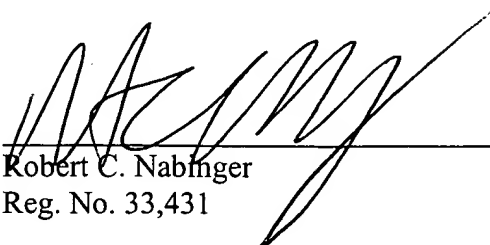
B

Applicant : Richard E. Durkot
Serial No. : 08/905,254
Filed : August 1, 1997
Page : 6

Attorney's Do No.: 08935-018001 / M-4697

Respectfully submitted,

Date: May 3, 2000



Robert C. Nabinger
Reg. No. 33,431

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

20055502.doc

B